

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001059**Date Inspected:** 29-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Gui Yi Ru, Xu Xianping**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Ken Jobes, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, to randomly monitor welding and Quality Control (QC) functions. While on site, the QA Inspector observed and/or discovered the following:

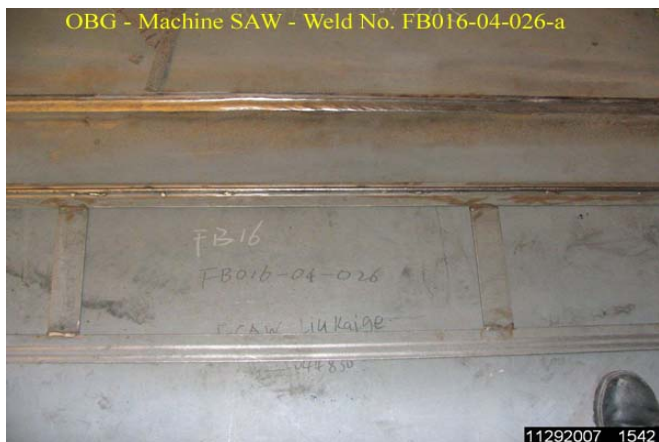
The Caltrans QA Inspector randomly observed machine Submerged Arc Welding (SAW) of floor beam splice, Weld No. FB016-04-026-a on the OBG. The "a" in this designation represents Side A. This joint will be backgouged and welded on the opposite side. This weld joins 30 mm thick ASTM A709M-345-F2-X-Z to 12 mm thick A709-345-T2-X. The 30 mm material was tapered down to match the 12 mm thick material. The Welding Procedure Specification (WPS) being used was WPS-B-T-2221-B-L2c-S-1. The welding operator was Wang Min (I. D. No. 048296). The QA Inspector observed that ZPMC CWI, Gui Yi Ru (AWS CWI No. 00072221) was present during the welding. It was also observed that ZPMC's documentation of welding parameters for minimum/maximum preheat/interpass temperature, voltage, amperage and travel speed, showed them to be within the ranges specified on the WPS up until the time of random observation. It was observed that the filler material, AWS EM12K; and the flux, AWS F7A3, being used was as specified on the WPS. This makes the wire flux combination an AWS classification of F7A3-EM12K. This work is for the OBG.

The QA Inspector also observed the semi-automatic Flux Cored Arc Welding of the flange portion of beam splices on the OBG. This welding was done in the vertical groove (3G) welding position using WPS-B-T-2233-B-U2-F. One of the beam splices observed was Weld No. BP003-01-007, which spliced Piece Marks RS15A to RS15C. The fabrication Drawing No. is BP3 and the weld detail is shown on Drawing No. BP003. The QA Inspector observed the ZPMC CWI, Xu Xianping (AWS CWI No. 07072071) was present during this welding.

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All observations appeared to meet the requirements of the job specifications.



Summary of Conversations:

As identified within the contents of this report.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials

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for your project.

Inspected By: Jobes,Kenneth

Quality Assurance Inspector

Reviewed By: Cochran,Jim

QA Reviewer